NOTES ON SOME WOOD ENGRAVERS OF NORTH AMERICAN INSECTS

By HARRY B. WEISS AND GRACE M. ZIEGLER

Upon turning over the pages of books on North American insects, particularly the early ones with their drawings, good, bad and indifferent, we have often wondered about the men who engraved the wood-blocks for the illustrations. Were they interested in natural history as such, with its attention to details, accuracy and the like, and did they appreciate the importance of markings and characters which entomologists usually want accentuated, or did they just engrave insects along with other subjects that happened to come their way? As anonymity appears to be their portion, especially in entomological circles, our chief aim has been to try to unearth some facts about these engravers who could either ruin or improve the work of the entomological artists. Our unearthing process has not been nearly so successful as we had hoped to make it, nevertheless the following notes, sketchy and thin as they are, represent an effort to do some justice to a group of craftsmen whose work deserves more attention in connection with the history of entomology than has been accorded it heretofore.

The art of wood-block illustration is an old one, dating from China in the ninth century or before, and in western Europe from the time paper was less expensive than parchment, although before that time wood-blocks were used for printing designs upon fabrics. Regardless of its interesting subsequent development and spread, the scope of these notes precludes anything on the history of wood engraving. Moreover, adequate writings on this subject are available.

In America the history of wood engraving begins with Dr. Alexander Anderson (1775–1870), a physician who abandoned medicine for engraving and who made his own tools and was the first to engrave on wood in this country. He engraved the illustrations in Webster's "Elementary Spelling-Book," the plates

for an edition of Shakespeare's plays, and numerous wood-blocks for the American Tract Society, Bewick's "Birds," business cards, primers, newspapers, chap books, bibles, diplomas, scientific papers, etc. At first he used both wood and metal, but after about 1820, his illustrations were cut almost entirely in wood. Some of his subjects included insects. For example, his "Diary," under the date March 27, 1795, contains the following entry:

"At 4 in the after-noon I call'd upon Dr. Mitchell, who wishes me to sketch a representation of the male and female canker-worm from some of the insects which he delivered to me."

Then, under April 1, we find the following: "I took the delineation of the Insects to Dr. Mitchell, who agreed to my proposal of offering it, with a paper of his on the subject, to Sword's for insertion in the Magazine. I accordingly deliver'd it to him."

On April 9, the record states, "After tea I went to Mr. Sword's and agreed to engrave a small plate of the Canker-worms for the Magazine." And on April 15, the entry records that Dr. Anderson began to engrave the canker-worm plate, and finished and delivered it on the same day. This, however, was a metal cut, but in view of the diversity of Anderson's subjects, it is not unlikely that he later engraved some insects on wood.

The first half of the nineteenth century in America was unproductive with respect to entomological articles illustrated by woodcuts, and it was not until after 1850, at which time Harper's New Monthly Magazine was established, that we find insects taking their place among the numerous illustrations which adorned the pages of an increasing number of magazines and newspapers. Thus in volume 13 of Harper's (pp. 618–627) we find an anonymous article on "Insects and Insect Life" with entomologically poor woodcuts of flies, butterflies, beetles, caterpillars, mole cricket, praying mantis and leaf insect, all unsigned. In volume 19 (pp. 178–189) are found ridiculous woodcuts illustrating "The Flea," and in the same volume (pp. 323–337, 1859) are grotesque illustrations of the katydid, cicada and grasshopper ("Musicians of our Woods"). And it would be possible to enumerate further many early papers on insects in which the woodcuts vary from fair to mostly terrible, although perhaps the

artists deserve their share of the blame. Nearly all of these early woodcuts of insects are unsigned. The illustrations are not remarkable for their accuracy either with respect to proportion or markings, and apparently neither artist nor engraver was interested in entomology or in presenting truthful delineations. In "The Burrowers at Home" (Harper's, vol. 32, pp. 421–439, 1866), "Some Curious Homes" (Harper's, vol. 33, pp. 161–169), and "More Curious Homes" (Harper's, vol. 33, pp. 273–285), some of the wood engravings are signed by Pearson. In "Living Lamps," by Charles F. Holder (Harper's, vol. 66, pp. 181–192) which deals with phosphorescent animals, including fire flies, lantern flies, etc., only one of the insect woodcuts is signed—that of lantern flies, by Schultz.

By 1870, the two publishing houses of Harper and Brothers and Frank Leslie employed approximately one hundred of the four hundred or so engravers in the country. In 1869, Harper and Brothers employed steadily thirty-five engravers, and the house of Frank Leslie an average of sixty. With the commercialization of wood engraving as such publishing activity demanded, it is small wonder that both artists and engravers did not have the time or inclination to be painstakingly exact with their insect work.

However, while Harper's was turning out poor insect engravings, Henry Marsh in the early sixties was working on the 278 blocks which in 1862 furnished most of the illustrations for the third or "Flint" edition of Dr. Thaddeus W. Harris's "Insects Injurious to Vegetation." These excellent delineations are more highly appreciated in engraving circles than they are in entomological ones, although Walton has said that they "are among the very best that ever have been produced in American works on entomology," the figures of the Bombycine moths "never having been equalled in any subsequent work." The drawings for Harris's work were made by Antoine Sonrel and John Burckhardt under the supervision of Prof. Louis Agassiz.

Mr. W. J. Linton ("The History of Wood Engraving in America," London, 1882), discussing the influence of English engravers upon the art in America, spoke disapprovingly of delicacy of line, minuteness, etc., when such characteristics were

without meaning, and deplored the tendency to imitate steel engravings. Marsh's insects, however, are not included within such disapproval. Of these Linton said, "Here the fineness is not a weak endeavor to hide bad work, nor from ignorance of what was meant. The insects, drawn from nature by Sonrel and Burckhardt, needed most absolutely exact rendering, to the representation not only of form and color, but of difficult textures also; and the engraver, Henry Marsh, was therefore fully justified in his microscopic treatment. No such book had been done before, nor will it ever be surpassed (though some similar cuts —moths, etc.—engraved by Mallory, in 1869, for the St. Louis *Entomological Journal,* are nearly if not quite as good). It is work not only of patience and remarkable eyesight, but also of true artistic skill showing, too, in the comparison of the steel plates with the woodcuts, that there are powers of expression in wood which cannot be equalled by the rival process. . . . Surely, when I exclaim against fine work, it is not such fine work as this."

Woodberry, in his "History of Wood Engraving" (New York, 1883), praises Marsh's insects also, saying, however, that the cuts in the published volume were not printed with the success they deserved and that Marsh's "marvellous rendering of insect life . . . can never be forgotten by any who have been fortunate enough to see the artist-proofs."

Both Linton and Woodberry, especially the former, said that Marsh was encumbered by his entomology to the extent that his later work, except his engravings after LaFarge, which required minuteness of treatment in order to carry out the fanciful spirit of the drawings, suffered from "over-refinement" and a "beetle or butterfly texture."

However, regardless of the "minuteness" of his later work, his beetles are hard and rigid, his butterflies are clean and dainty, and his moths have that soft, downy appearance so natural to them. From an entomological standpoint, the defects, if any, from which his later work suffered, were not too great a price to pay.

In Scribner's for July, 1879, some of Marsh's blocks from Harris were used to illustrate an article entitled "Summer Entomology," by Edward A. Samuels.

Biographical details concerning Henry Marsh seem to be unrecorded. Mr. Sidney L. Smith, of Boston, with whom Marsh roomed for many years, first met him about 1865. Mr. Smith states that he was of a retiring disposition, and not being able to sleep, spent his nights reading, that he had a very able mind, was twice married, and during his last days became quite hermit-like in New York, where he could be seen only by appointment. Mrs. A. W. Drake informs us that she knew Marsh slightly during the later years of his engraving for The Century Magazine, and recalls him as a shy and solitary figure with a "personality as refined and delicate as some of his exquisite work."

Mr. Timothy Cole remembers hearing much about Marsh back in the late sixties and early seventies and occasionally seeing his work at that time. According to Mr. Cole, Marsh lived in Boston and worked principally for Boston publishing houses. Bond and Chandler, engravers of Chicago, but formerly of Boston, told Mr. Cole that Marsh worked in a quite disorderly room, where the ash from his stove piled up on the floor. Mr. Marsh made lots of money, and bought a beautiful house in Boston, the interior of which LaFarge decorated at a cost of $10,000, a respectable sum in the seventies. According to the New York Times of January 20, 1913, he died November 12, 1912.

Marsh engraved after LaFarge, Homer Martin, Nast, Brennan, Riordan, etc., and some of his engravings, such as "Robinson Crusoe" (after Nast, Riverside Magazine, vol. II, New York, 1868), and "The Wolf Charmer" (after LaFarge, Riverside Magazine, vol. I, 1867) are frequently favorably mentioned.

Another wood engraver whose work almost equalled that of Marsh, but who apparently engraved fewer insects than Marsh, was Francis S. King. In Harper's New Monthly Magazine, vol. LIX, p. 385, 1879, the illustration entitled "Butterflies" in W. Hamilton Gibson's article "Snug Hamlet and Home Town" was engraved by King. Linton wrote of this as good, but not equal to Marsh's work, and was of the opinion that sufficient contrast between the butterfly texture and the flower texture was

lacking. However, King's other work is highly praised, and Linton does not criticise his fineness. Woodberry, however, places King's butterflies on a par with those of Marsh. An entomologist will have no difficulty in recognizing them as *Papilio glaucus turnus* and *Anosia plexippus,* exquisitely done, against a faint background of goldenrod and other flowers.

King was born in Maine in 1850, and his first drawings were natural history ones copied from an "Illustrated Natural History" of the period. In 1870 he came to New York, where he studied wood engraving, working for J. W. Orr and later establishing his own office. He engraved after Church ("The Fog," "The Battle of the Sirens," "The Sorceress"), William Hamilton Gibson and others, and seemed to have a fondness for landscapes, birds and fishes. Some of his work appeared in St. Nicholas, Harper's Weekly, and Hearth and Home, and all of it is characterized by "precision of line." He died in Newark, New Jersey, July 19, 1913.

In the same article (Snug Hamlet and Home Town), there is a woodcut showing two caterpillars on a twig, called "Professor Wiggler." These were done by Filmer, whose landscapes are so frequent in "Picturesque America."

William Baxter Closson, painter and engraver, occasionally engraved insects also. In his artistically done "Night Moths" (Printing Art, vol. 31, 1918, pp. 118–122) he did not delineate the insects so that they are recognizable. This, however, is not a criticism, for to have done so would have spoiled the effect.

Concerning the St. Louis "Entomological Journal" referred to by Linton as containing woodcuts of insects by Mallory, nearly as good as those of Marsh, it was impossible for us to locate a publication bearing that title, and we are of the opinion that Linton meant "The American Entomologist, edited by Walsh and Riley and published in St. Louis from September, 1868, to August, 1869. Commencing with volume II, the title was changed to "The American Entomologist and Botanist," and the editors to Riley and Vasey (Sept.–Oct., 1869, to Dec., 1870). Ten years later volume III appeared under the title of "The American Entomologist," 2nd Series, edited by Riley (Jan. 1880 to Dec. 1880, New York). In the first two volumes, and the

third, too, it is rare to find a signed wood engraving. For the most part they are good, and Linton's "Mallory" may have done them. Riley's first annual "Report on Noxious, Beneficial and Other Insects of the State of Missouri" (1869) and later ones also, contain good insect work, but with few exceptions the cuts are unsigned. On page sixty-three of Riley's first Missouri report, a well-known cut of the codling moth is signed by W. Mackwitz.

Woodcuts were borrowed then, as zinc etchings and other cuts are borrowed now, and one finds the same cuts appearing in several contemporary journals and reports.

Townsend Glover's reports contain numerous woodcuts of insects, some of which, however, are quite small and insufficient. None of them are signed. Many of the excellent woodcuts of economic insects which appeared in the early reports of the United States Department of Agriculture were drawn and engraved by Otto Heidemann, who came to this country from Germany in 1873 and established an engraving office in Baltimore. He moved to Washington in 1876, and from then on supplied numerous illustrations for government publications. In 1883 he was appointed engraver in the United States Department of Agriculture, and practiced his art until photo-engraving submerged it. In 1898 he became an assistant in the Bureau of Entomology and an authority on Hemiptera. He died in Washington, D. C., November 17, 1916.

One cannot help marvelling at the versatility of some of the older entomologists, who were at once artists, engravers and entomologists, a versatility which may have been in part the outgrowth of conditions during their times, but which nevertheless existed. One does not ordinarily think, for example, of Dr. George H. Horn as an engraver, yet this outstanding coleopterist at one time engraved his own plates, although not on wood. In the "Transactions of the American Entomological Society," vol. V, plate 1, figuring outlines of abdominal segments, antennæ, tips of elytra, etc., was drawn and engraved by Dr. Horn. It is not artistic in any sense, as Dr. Horn recognized and so stated, but it is useful in helping the student to distinguish sexual differences of the species.

A. S. Packard's "Guide to the Study of Insects" (sixth edition, New York, 1878) contains over six hundred, for the most part, excellent woodcuts, some engraved expressly for the book and many borrowed from Harris's "Insects Injurious to Vegetation" and from the American Entomological Society, Boston Society of Natural History, American Naturalist, etc. As usual, signatures are missing, the only exception being Fig. 521a of the grape *phylloxera,* which is signed Wittenberg and Sorber Sc. St. Louis. Many of the illustrations in Packard's "Guide" were later used in his "Our Common Insects" (Boston, 1873). In his "Half Hours with Insects," (Boston, 1877) there are 261 wood engravings, one of which, a full page tropical scene of a termite nest entitled "Insects as Architects," is signed by Laplante. Packard's "The Injurious Insects of the West, A Report on the Rocky Mountain Locust," etc. (Salem, 1877), contains sixty-seven woodcuts. In the "Fifth Report of the U. S. Entomological Commission" (Washington, 1890), by the same author, only two of the cuts are signed, one, of the imported elm leaf beetle, by Heidemann, and one, of the "great elm leaf beetle," by H. H. Nichols. In Comstock's "Report of the Entomologist of the United States Department of Agriculture for the year 1879," and in Riley's part of the "Annual Report of the United States Department of Agriculture for the year 1878," five or six of the illustrations on the plates are signed by Nichols as engraver. Nichols's name also appears on Marx's figures of the larvæ and adults of the grapevine beetle, on page 353 of Lintner's "Seventh Report on the Injurious and Other Insects of the State of New York" (Albany, 1891).

The illustrations in Samuel H. Scudder's "Brief Guide to the Common Butterflies of the Northern United States and Canada" (New York, 1899) were in part borrowed from Harris, Riley and Packard. Of ninety-seven figures, thirty-six were originally engraved by Marsh. In Scudder's "Butterflies of the Eastern United States and Canada" (Cambridge, 1899, 3 vols.), of the butterflies in black, two plates of Nymphalidæ, and one plate of Lycaenidæ, Papilionidæ and Hesperidæ were printed from electrotypes made from the original woodcuts engraved by Marsh for the third edition of Harris's work. One plate of Nymphalidæ

and Lycaenidæ and one plate of Papilionidæ and Hesperidæ were electrotyped and printed, from woodcuts engraved by John Andrew and Son. These are very good. John Andrew, according to Fielding, was a wood engraver who worked in New York and Boston for the publishers during the latter half of the nineteenth century.

In "Butterflies, Their Structure, Changes and Life Histories" by Samuel H. Scudder (New York, 1881), some of the illustrations are electrotypes from the original woodcuts made by Marsh for Harris's work. In addition a half dozen woodcuts by Messrs. Andrews were photographically reproduced. "Insects at Home" by J. G. Wood (New York, 1872), which deals with British insects, contains seven hundred woodcut figures by G. Pearson. William Saunders' "Insects Injurious to Fruits" (Philadelphia, 1883), was illustrated with electrotypes mostly made from woodcuts used previously in the works of Glover, Harris, Riley, Packard, Walsh, and in reports of the United States Commissioner of Agriculture. Some, however, were drawn and engraved expressly for the book by H. H. Nichols, of Washington; Worthington G. Smith, of London, England; H. Faber & Son and Crosscup and West, of Philadelphia, and P. J. Edmunds, of London, Ontario. The illustrations are excellent throughout.

In "A Manual for the Study of Insects" (Ithaca), by John Henry Comstock and Anna Botsford Comstock, may be found the admirable wood engravings of Anna Botsford Comstock. The preface states that "Nearly all of the wood-cuts have been engraved from nature by the Junior Author. As the skill which she has attained in this art has been acquired during the progress of the work on this book, some of the earlier-made illustrations do not fairly represent her present standing as an engraver. But it does not seem worth while to delay the appearance of the book in order to re-engrave these figures; especially as it is believed that they will not be found lacking in scientific accuracy. The generous appreciation which the best engravers have shown towards the greater part of the work leads us to hope that it will be welcomed as an important addition to entomological illustrations."

Subsequent books on insects by these authors contain additional wood engravings by Mrs. Comstock, who, according to Mr.

Frank Weitenkampf, studied at the engraving school for women at Cooper Institute, New York City, which was established in 1859 and continued until 1890 or 1891. Mrs. Comstock's entomological activities are so well known that it would be superfluous to repeat them here, and besides a brief biographical sketch may be found in the recently issued fourth edition of "American Men of Science."

In passing, mention may be made of the scientifically inaccurate woodcuts of various insects, such as the ant-lion, dragonflies, beetles, etc., illustrating Schele de Vere's "Low Life in Nature," published in Scribner's Monthly in 1871 (Nov., vol. III, No. 1, pp. 54–61). Other poor insect work appeared in the issues for December, 1877, and August, 1879.

The use of wood engravings for illustrative purposes in entomological publications has passed, in fact, it passed some years ago, and considering present-day photo-mechanical methods, it is not likely ever to be revived. And entomologists no longer need to be so versatile, at least not in the same directions as their predecessors.

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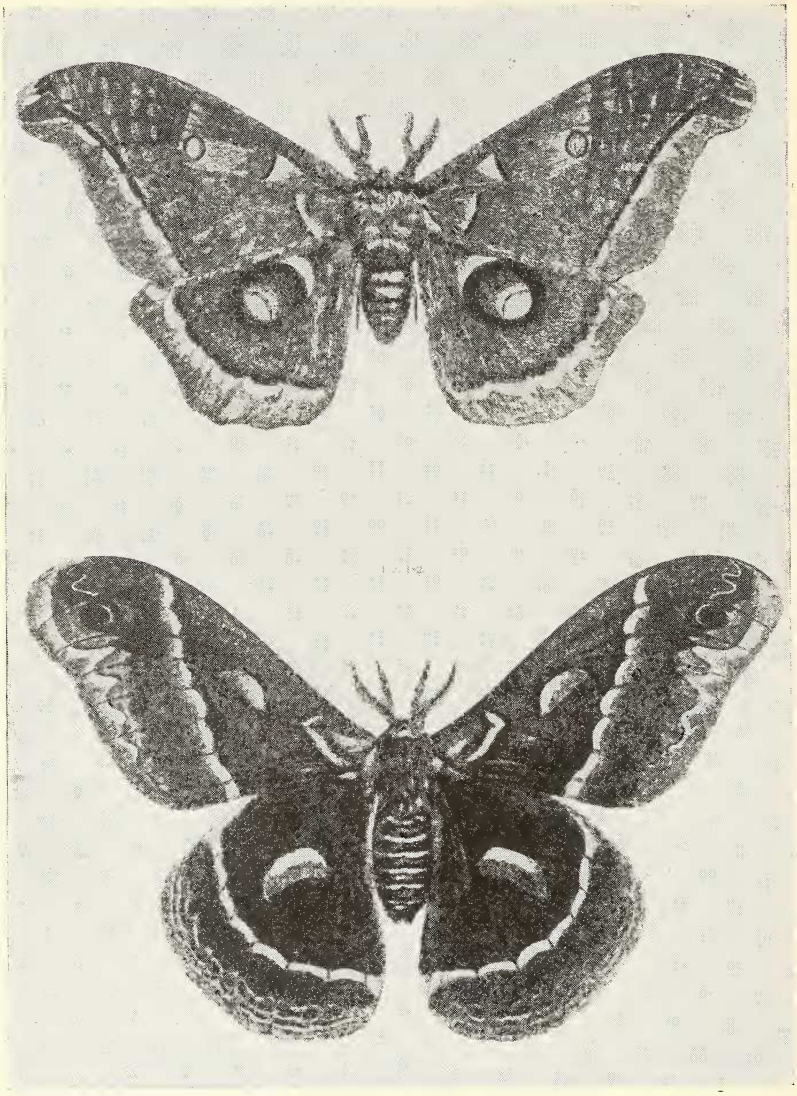


Reproductions of woodcuts by Henry Marsh, from Harris's "Insects Injurious to Vegetation," 3rd ed., 1862. (Reduced.)

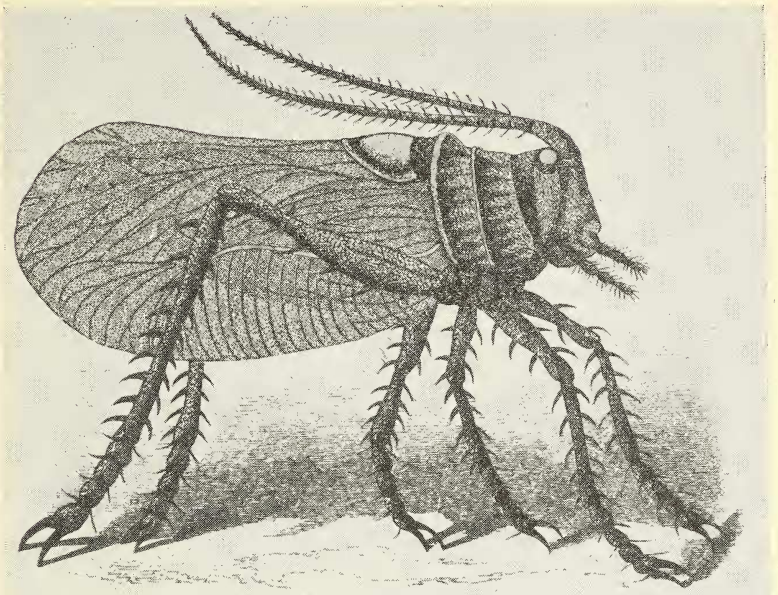
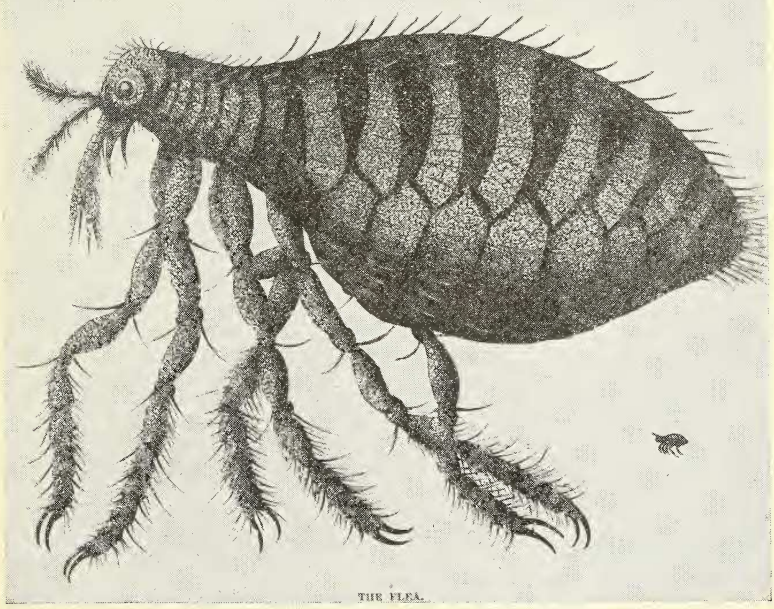


FIGURE 2.—THE KATYDID.



THE FLEA.

Reproductions of unsigned woodcuts of the Katydid and the Flea, from Harper's New Monthly Magazine, July and August, 1859. (Reduced.)